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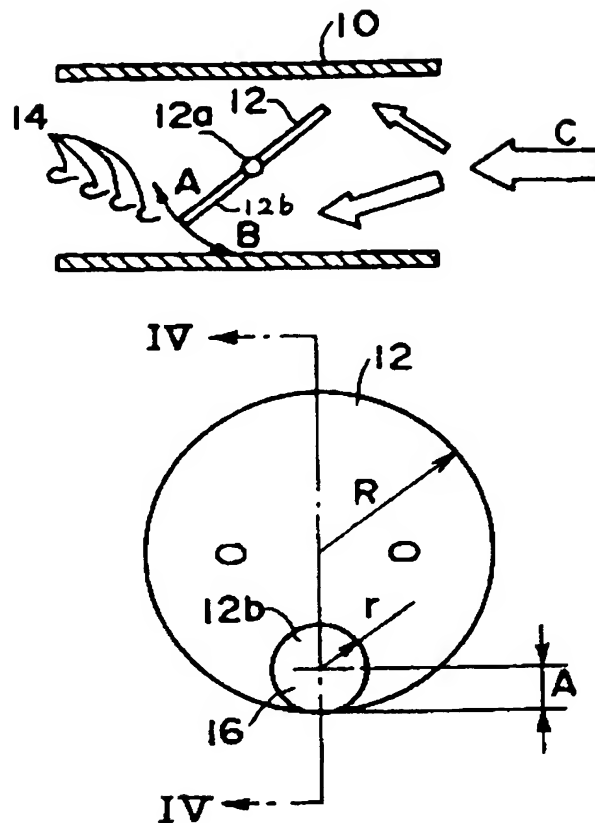
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APPLICANT : TOYOTA MOTOR CORP;

INVENTOR : TAKAHASHI MASARU;

INT.CL. : F02D 9/10

TITLE : THROTTLE-VALVE MECHANISM FOR
INTERNAL-COMBUSTION ENGINE



ABSTRACT : **PURPOSE:** To protect a driver from feeling uncomfortable by whistling noises, by preventing generation of whistling vortices by forming a recess in the front surface of a throttle valve near the top turned toward the downstream side, and producing turbulence by the recess.

CONSTITUTION: A throttle valve 12 is disposed in a throttle bore 10 in the manner that it is freely rotatable around a shaft 12a in the directions shown by arrows A, B in the drawing. The quantity of mixture C supplied to an engine is controlled by turning the throttle valve 12. According to the present invention, a circular recess 16 is formed in the front surface of the throttle valve 12 near the top thereof turned toward the downstream side. The recess 16 is formed partially in the end face of the throttle valve 12 and forms a step at the end face, and the step is expanded inwards from the end face of the throttle valve 12. With such an arrangement, generation of whistling vortices 14 is prevented by producing turbulence by the recess 16.

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TAMURA MASANOBU
SATO KUNIHICO
TAKAHASHI MASARU(54) **THROTTLE-VALVE MECHANISM FOR
INTERNAL-COMBUSTION ENGINE**

(57) Abstract:

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